RE THINK WITH Th ORIUM

thorium 90 Th 232.04

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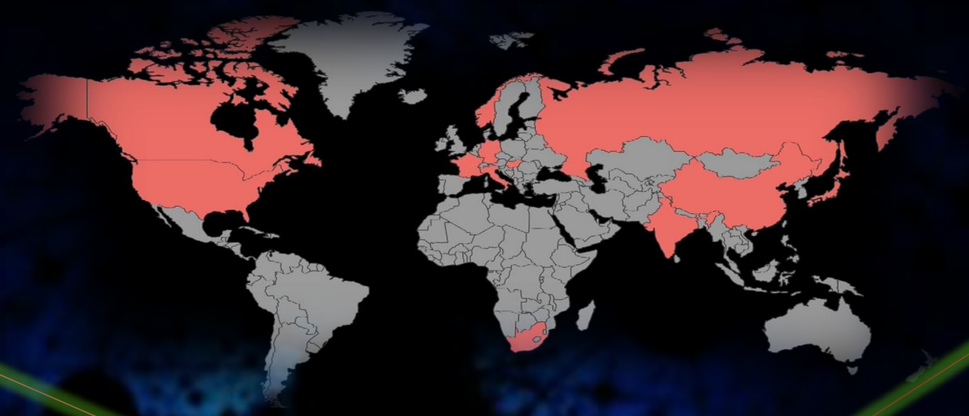
SAFE

- 0% chances of meltdowns (Atm. Pressure)
- "Self-Stabilizing"— Temp. rises, No. of Reaction decreases → no incidents like Chernobyl explosions.
- Freeze Plug melts → all fuel into emergency tank
- Naturally cooled by convection.
- No plutonium production—meaning, NOT easily proliferated.

CLEAN AND EFFICIENT

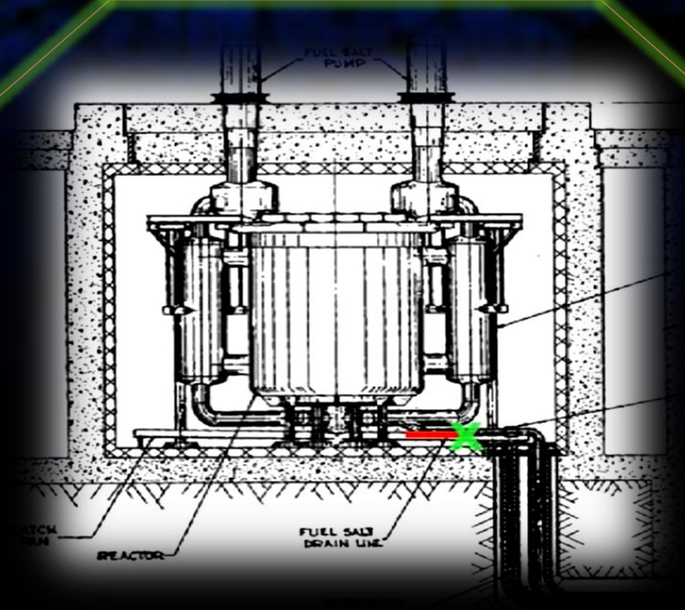
- 83% of radioactive waste neutralized ~10 years.
- It is Clean: No CO_2 produced. Environment Friendly.
- Energy-dense
  - 1Kg of Th = 200 Kg of U = 3.5million Kg of Coal
- Recycle existing waste and reduce it to waste profile of Thorium.
- Approx. 97% of thorium's energy is used compared to uranium.



Parts of the World Currently Researching on Thorium

Thesis Question

Why use thorium as a fuel source for nuclear energy?



LFTR Design/Blueprint

ABUNDANT & CHEAP

- 4x more available than Uranium.
- Sustain world electricity demands ~10,000 years.
- Found on all continents:
  - India, Australia, Norway and USA.
- Cheaper than coal, oil, uranium and natural gas.
- If 1 GW of electricity produced per year
  - Fuel Oil(Petroleum)=$1.5 Billion/year
  - Thorium=$50,000/year

Recommendations

- World governments should fund researches revolving around thorium reactors.
- World governments should focus on developing nuclear energy with thorium.
- Educate people on nuclear energy and clear the stereotype knowledge of the same.
- Encourage people to be aware of the technology available
- Encourage all the people who can, to donate or invest in clean energy, especially technologies like LFTR and MSRs.